

## REMARKS

Claims 11, 18-21, and 31-45 and 47-55 are pending in the application. Claims 31, 40, 44, and 47 have been amended herein. Claim 46 has been canceled herein without prejudice. No claims have been allowed.

### *Rejections under 35 U.S.C. § 103*

Claims 11 and 18-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bucci, et al. U.S. Patent (6,822,315), hereinafter “Bucci”, in view of Turpin (U.S. Patent 5,640,501), hereinafter “Turpin”.

Claims 31-55 also appear to be rejected under 35 U.S.C. § 103(a) as being unpatentable over Bucci in view of Turpin. The customary paragraph explicitly stating the rejection of these claims is missing from the Final Office Action. However, separate paragraphs detailing reasons for the rejections of these claims are provided in the Office Action.

Bucci discloses a dynamic workforce scheduler that uses a simulated annealing function while considering employee preferences such as preferred hours, preferred jobs, etc., as well as employee job skills. The schedule must comply with certain constraints, such as hours rules, minor rules, break rules, etc. (column 1, line 61-column 2, line 49, and Figure 1). Bucci describes a method for generating a schedule that takes into account preexisting rules and constraints. The method includes a simulated annealing process that includes determining whether a current schedule iteration is better than a previous schedule iteration in an attempt to find a best schedule. Bucci does not teach or suggest allowing a user to impose a self-referential constraint on a rule. Bucci further fails to teach or suggest allowing a user to impose a self-referential tolerance on a rule. In contrast, the rules and constraints are predetermined in Bucci. Bucci does not teach constraints that modify rules or tolerances on rules. Also, Bucci does not teach that the constraints that modify rules and the tolerances on rules may be applied by a user in a method of building rules and constraints. Bucci is not directed to building rules and constraints. Rather, Bucci is directed to a method for processing preexisting rules and constraints to iteratively generate schedules and determine which schedule is the “best”.

Turpin discloses a system and method for visually creating goal oriented electronic form applications having decision trees. A system for creating and completion of the electronic forms is disclosed. the system creates a graphical image data file which defines: a graphical image of a form for display and printing; a graphical image of tree branches, tree nodes, and conclusions in association with fields of the form; reading and writing links between form fields and data sources and destinations; and links to other forms which, with the original form, comprise a related stack of forms. The system includes a form creation mode and a run time mode. The trees are defined by an application developer using the form creation mode to establish both qualitative and quantitative relationships between the various fields on the forms thereby providing the basis for the goal oriented prompting for the application user using the run time mode. (Abstract).

Applicants respectfully submit that the claims as amended would not have been obvious in view of Bucci and Turpin. For example, claim 11 recites a computer-implements method of building rules and constraints for a resource scheduling system, comprising allowing a user to impose at least one self-referential constraint on a completed rule, wherein the at least one self-referential constraint is assignable to an individual to be scheduled, and allowing a user to impose at least one self-referential tolerance on the completed rule.

As stated above, Bucci does not teach or suggest the cited elements of claim 11. Bucci contains no teaching regarding self-referential constraint or self-referential tolerances on rules. Rather, Bucci teaches only predetermines rules that are fed into a schedule generating process. Turpin does not make up the deficiencies of Bucci. Turpin refers only to a process for relating forms that are filled out by a user, anticipating a user's intended entry into a form, etc. Turpin is not at all related to schedule generation, and completely lacks any allusion to scheduling rules and constraints. For all of these reasons, one of ordinary skill would not have been motivated to combine Bucci with Turpin to improve on the deficiencies of Bucci. Applicants therefore respectfully submit that claim 11 would not have been obvious to one of ordinary skill in the art in view of the cited references.

Claims 18-21 depend from claim 11 and include further limitations thereon. Therefore Applicants respectfully submit that claims 18-21 similarly would not have been obvious to one of ordinary skill in the art in view of the cited references.

Claim 31 recites a method of optimizing a schedule for a plurality of agents, including accepting user input to create a completed rule from the rule fragment, wherein user input includes a selection from a displayed list, and a value directly entered by the user, and accepting a tolerance input by the user. Applicants respectfully submit that the invention of claim 31 would not have been obvious in view of the combination of Bucci and Turpin. Neither Bucci nor Turpin, alone or in combination, teach or suggest accepting user input to create a completed rule from the rule fragment, wherein user input includes a selection from a displayed list, and a value directly entered by the user. Bucci does not teach a user selecting or affecting in any manner the rules used by the schedule generation method. Rather Bucci teaches a method of iteratively generating a schedule that includes considering predetermined rules. Turpin also fails to teach or suggest such a limitation. Turpin is limited to a method for filling forms with information. The information to be filled in may be anticipated by the method. Also, a relationship between forms may be determined. This is simply not related to a user entering rules to be used to generate a schedule.

Claim 31 also recites accepting a tolerance input by the user, wherein the tolerance is placed on a rule. As discussed with reference to claim 11, neither Bucci nor Turpin, alone or together, teach or suggest tolerances on rules. For all of these reasons, Applicants submit that one of ordinary skill would not be motivated to combine Turpin with Bucci to achieve the invention of claim 31.

Claims 32-39 depend from claim 31 and include further limitations thereon. Therefore Applicants respectfully submit that claims 32-39 are similarly allowable over the cited art.

Claim 40 recites a method of optimizing a schedule, including limitations such as those discussed above with reference to claim 31. Specifically, claims 40 includes accepting user input to create a completed rule from the rule fragment, wherein user input includes a selection from a displayed list, and a value directly entered by the user.

Claim 40 also includes accepting a tolerance input by the user, wherein the tolerance is placed on a rule. Applicants have explained why these limitations are not taught or suggested by the cited prior art. Therefore, Applicants respectfully submit that claim 40, and its dependent claims 42-43, are allowable over the prior art for the reasons detailed above with reference to claim 31.

Claim 44 recites a system for generating a schedule for a plurality of agents. The system of claim 44 comprises at least one user input device configured to receive user input to create a completed rule from a rules fragment, wherein user input includes: a selection from a displayed list; a value directly entered by the user; at least one self-referential constraint imposed on the completed rule, wherein the at least one self-referential constraint is assignable to an agent to be scheduled; and at least one self-referential tolerance imposed on the completed rule. Applicants have explained above that Bucci and Turpin, alone or in combination, do not teach or suggest the limitations just cited. Therefore, Applicants submit that the system of claims 44-45 would not have been obvious to one of ordinary skill in the art in view of Bucci and Turpin.

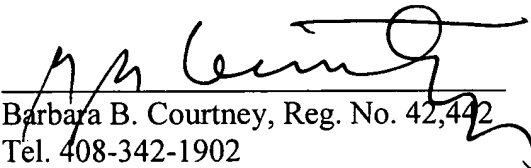
Claim 47 recites a computer-readable medium having instructions stored thereon which when executed, cause a processor to generate an initial schedule according to at least one rule, comprising, displaying a current rule fragment, accepting user input to create a completed rule from the rule fragment, wherein user input includes a selection from a displayed list, and a value directly entered by the user and accepting a tolerance input by the user. Applicants have previously discussed why Bucci and Turpin, alone or in combination, do not teach or suggest at least the limitations cited above. For the reasons previously given, Applicants respectfully submit that claims 47-55 would not have been obvious to one of ordinary skill in the art in view of the cited references.

**CONCLUSION**

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 11, 18-21, and 31-45 and 47-55 are in condition for allowance. The allowance of the claims is earnestly requested. The Examiner is invited to call the undersigned if there are any issues that remain to be resolved prior to allowance of the claims.

Respectfully submitted,  
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